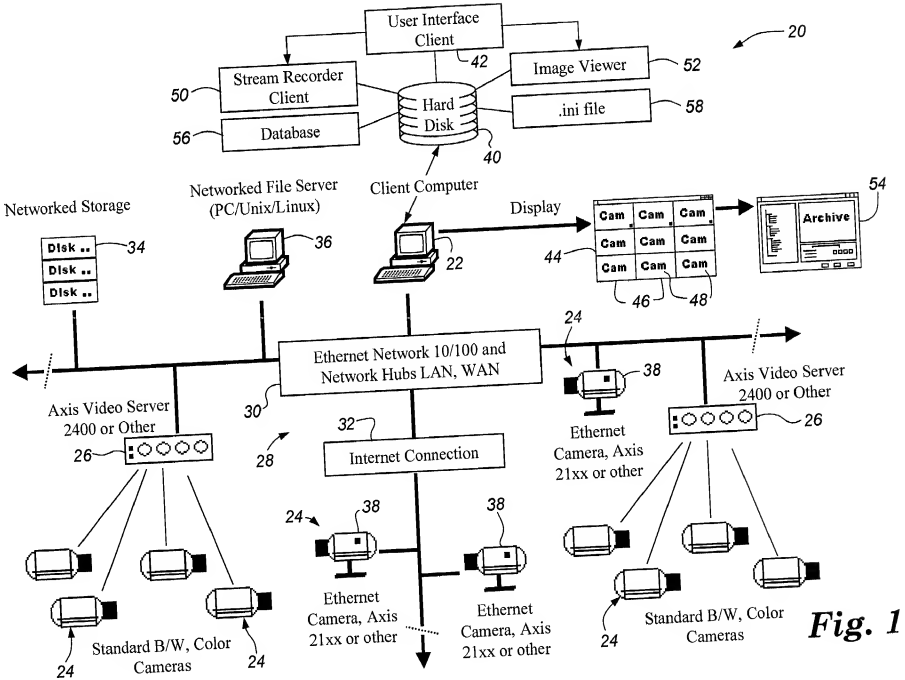
User Interface Client
42
20
Stream Recorder Client
50
Image Viewer
52
Hard Disk
40
Database
56
.ini file
58
Networked Storage
Networked File Server (PC/Unix/Linux)
Client Computer
Display
Disk ..
Disk ..
Disk ..
34
36
22
Cam
Archive
54
44
46
48
24
Ethernet Network 10/100 and Network Hubs LAN, WAN
30
38
Axis Video Server 2400 or Other
26
28
32
Internet Connection
Ethernet Camera, Axis 21xx or other
Standard B/W, Color Cameras

Fig. 1

PATENT CLASSES

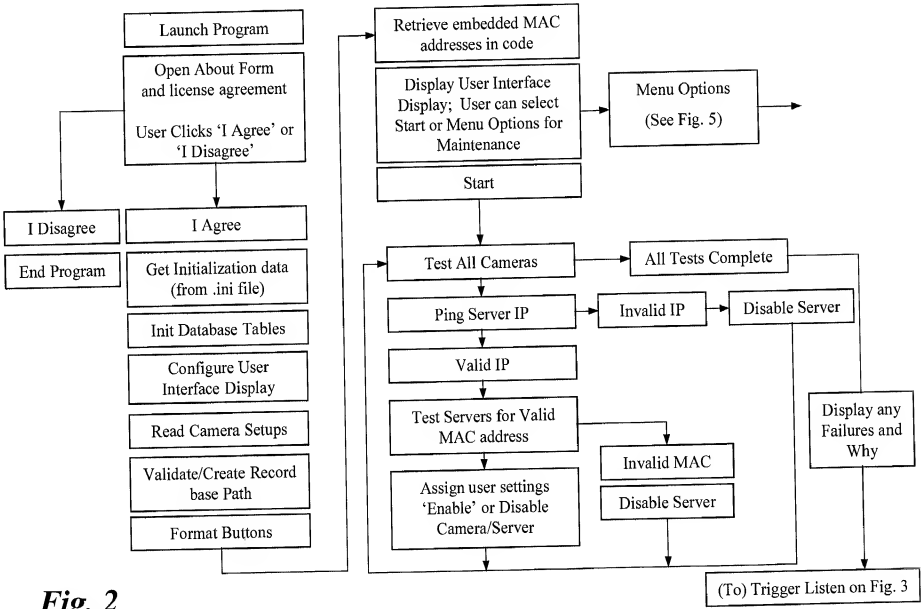

Fig. 2

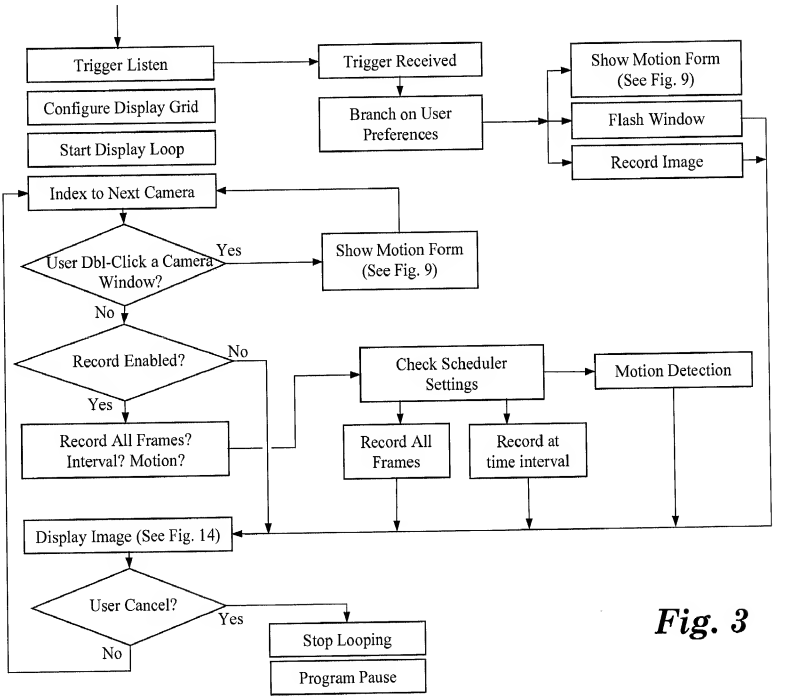
Trigger Listen
Configure Display Grid
Start Display Loop
Trigger Received
Branch on User Preferences
Show Motion Form (See Fig. 9)
Flash Window
Record Image
Index to Next Camera
User Dbl-Click a Camera Window?
Yes
Show Motion Form (See Fig. 9)
No
Record Enabled?
No
Yes
Check Scheduler Settings
Motion Detection
Record All Frames? Interval? Motion?
Record All Frames
Record at time interval
Display Image (See Fig. 14)
User Cancel?
Yes
No
Stop Looping
Program Pause

Fig. 3

PATENT CLOSED

[Initialize]

WindowState = NORMAL

Display = Image

DisplayWidth =11505

BorderWidth =2

SkipInactivePorts = True

Images_Across =4

Images_Down =2

Ref_Image_Width =352

Ref_Image_Height =240

ShowHighliteFrames =TRUE

ShowRecordIndicators =TRUE

ShowCameraCaptions =TRUE

ShowPortNumbers =TRUE

PingTimeout = 5000

PingOnImageRequest = FALSE

HighliteFrameColor =16744448

;HighliteFrameColor = &H00&

FlashFrameColor = &H000000FF&

ViewBackColor = &H00808080&

CameraCaptionForeColor = &H00FF00&

CameraCaptionBackColor = &H00&

TCPPort = 1111

HTTPPort = 80

MaxFailOverCount =50

ReconnectAttemptIntervalSecs =60

RecordMode = MULTIPLE,24

RecordThumbNails = TRUE

RecordImagesBasePath = C:\Test

DefaultEmailRecipient =marchesej@teleweb.net

EMailUserID =marchese2

EmailUSerPW =sdsdsdsd

ShowMotionBorder = TRUE

EnableStatusLog = TRUE

EnableErrorLog = TRUE

[Camera Servers]

Camera_Database = C:\Program Files\Softsite32\Database\SoftSite.mdb

[Stream Applet]

StreamViewMode = 2

StreamIntervalSeconds = 0

StreamMaxFPS = 0

StreamRecord = 0

Fig. 4

PTO/SB/21

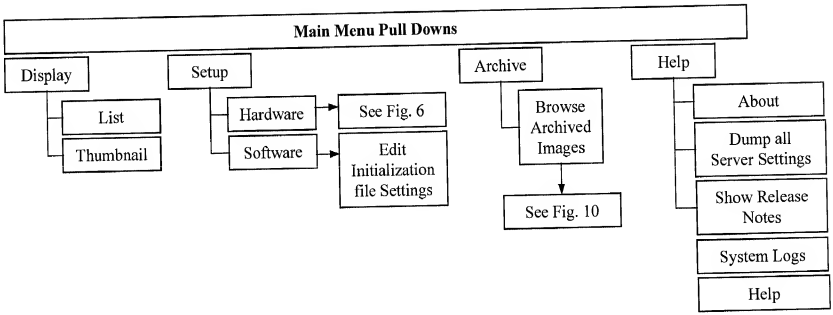

Fig. 5

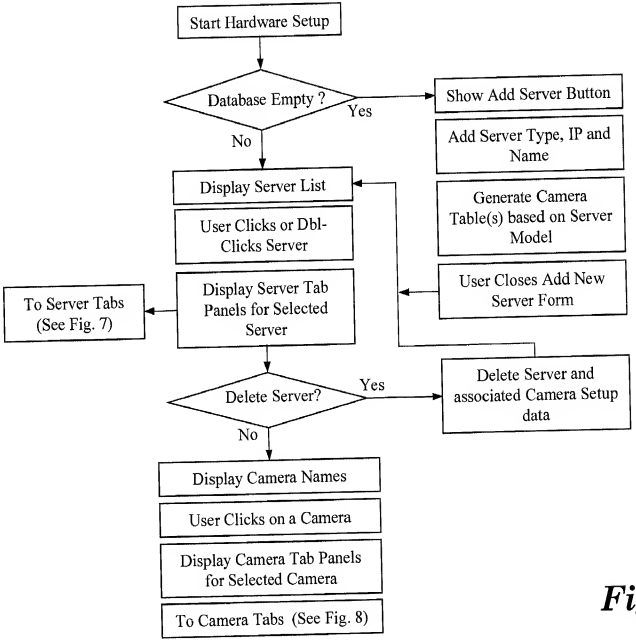
Start Hardware Setup
Database Empty ?
Yes
No
Show Add Server Button
Add Server Type, IP and Name
Display Server List
User Clicks or Dbl-Clicks Server
Generate Camera Table(s) based on Server Model
User Closes Add New Server Form
To Server Tabs (See Fig. 7)
Display Server Tab Panels for Selected Server
Delete Server?
Yes
No
Delete Server and associated Camera Setup data
Display Camera Names
User Clicks on a Camera
Display Camera Tab Panels for Selected Camera
To Camera Tabs (See Fig. 8)

Fig. 6

PATENT CLASSES

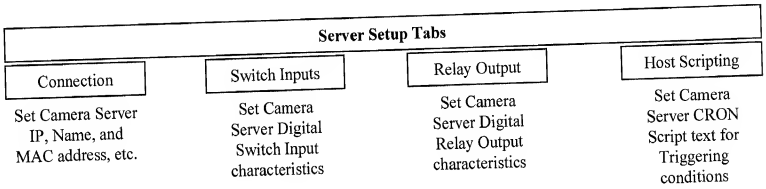

Fig. 7

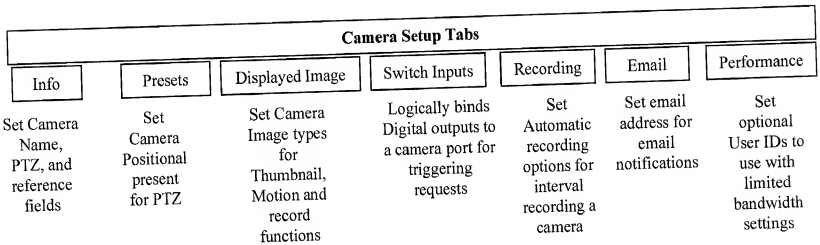

Fig. 8

PATENT-US-000000

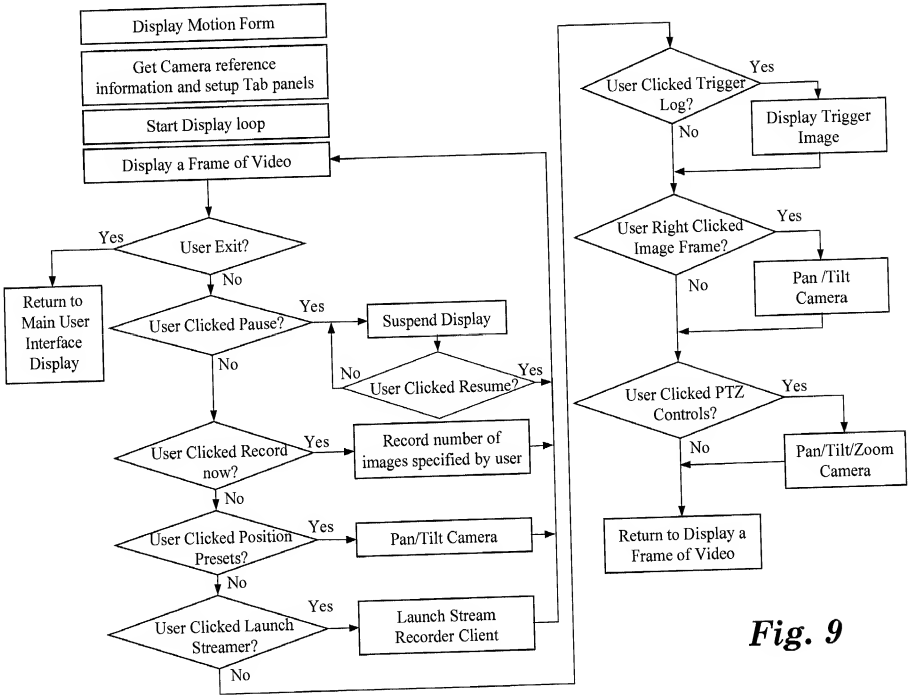

Fig. 9

PATENT-US0000

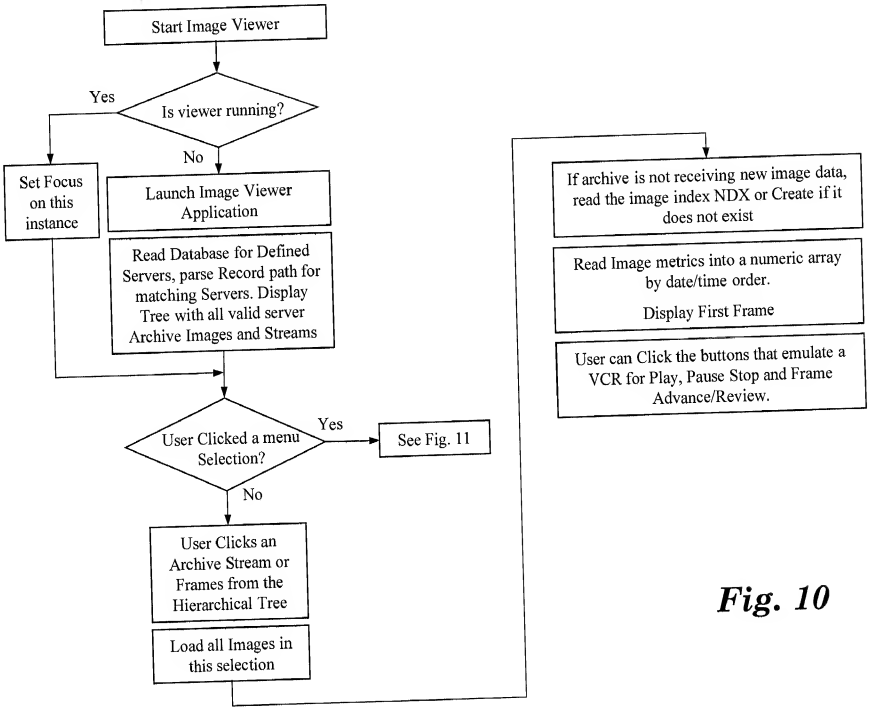

Fig. 10

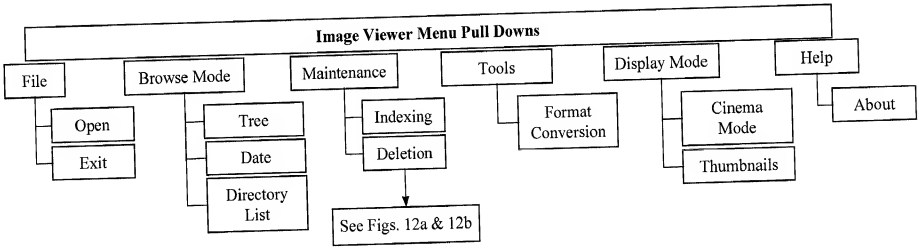
Image Viewer Menu Pull Downs
File
Open
Exit
Browse Mode
Tree
Date
Directory List
Maintenance
Indexing
Deletion
See Figs. 12a & 12b
Tools
Format Conversion
Display Mode
Cinema Mode
Thumbnails
Help
About

Fig. 11

PRIOR ART

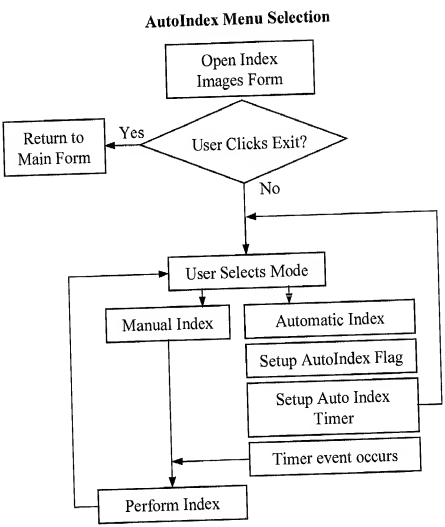

Fig. 12a

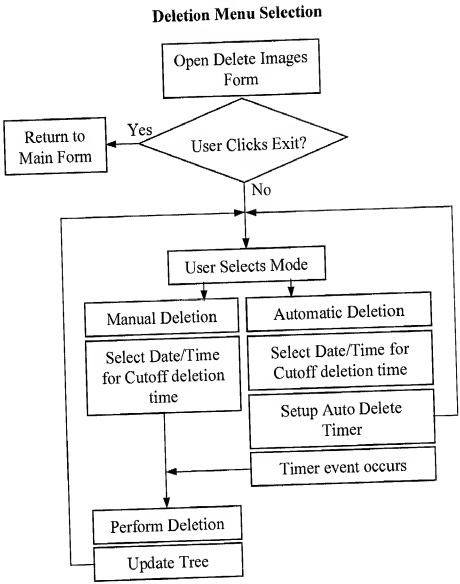

Fig. 12b

PCT/US2000/

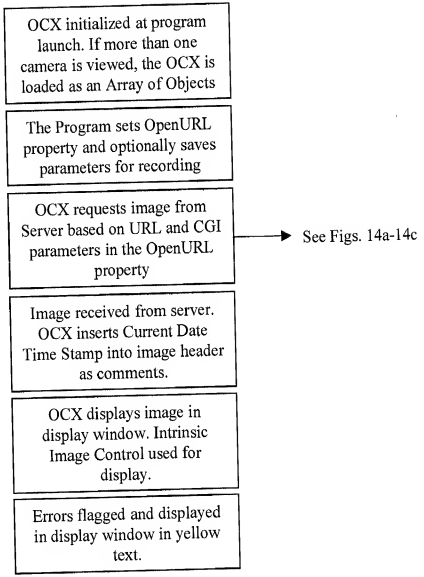

Fig. 13

PATENT CLASSES

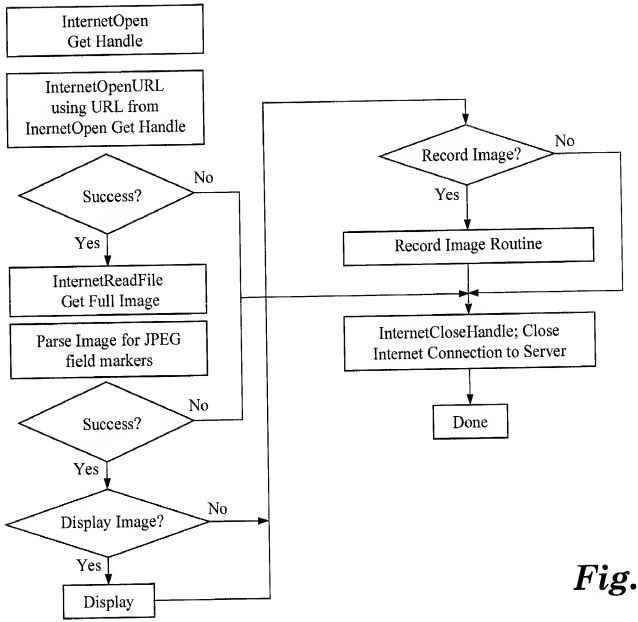

Fig. 14a

PATENT CLASSES

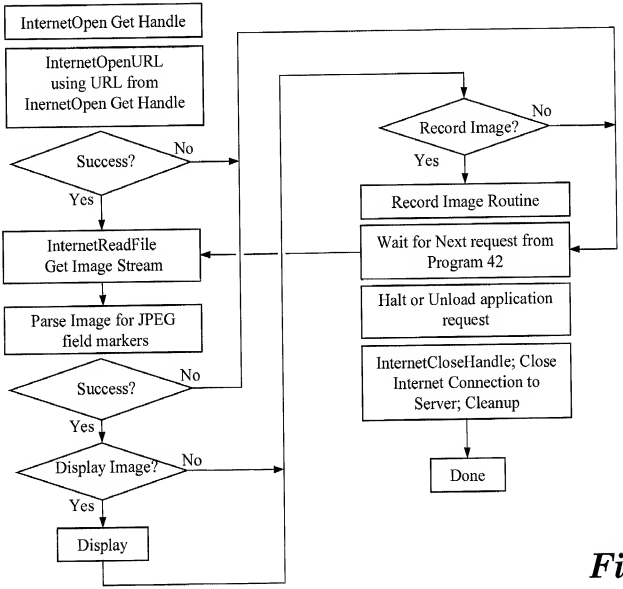

Fig. 14b

TOUCH CLOSED

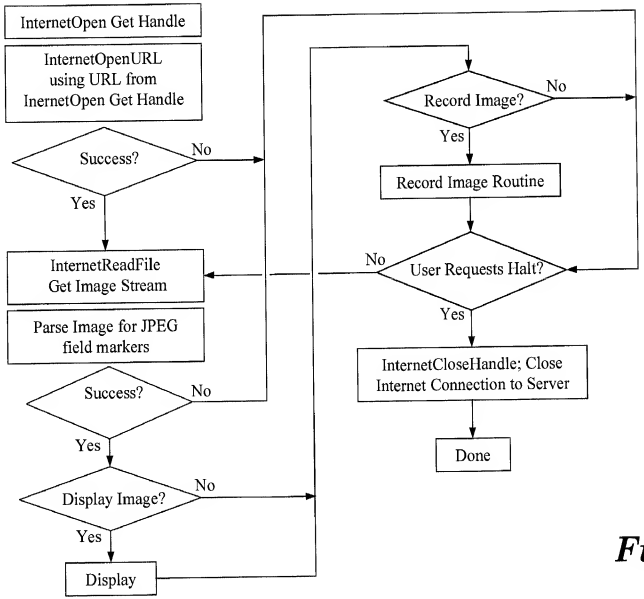

Fig. 14c

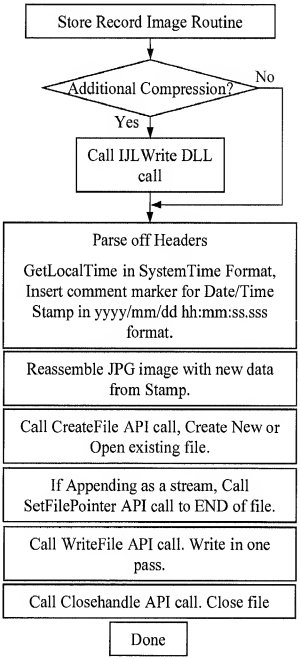
Store Record Image Routine
Additional Compression?
No
Yes
Call IJLWrite DLL call
Parse off Headers
GetLocalTime in SystemTime Format, Insert comment marker for Date/Time Stamp in yyyy/mm/dd hh:mm:ss.sss format.
Reassemble JPG image with new data from Stamp.
Call CreateFile API call, Create New or Open existing file.
If Appending as a stream, Call SetFilePointer API call to END of file.
Call WriteFile API call. Write in one pass.
Call Closehandle API call. Close file
Done

Fig. 15

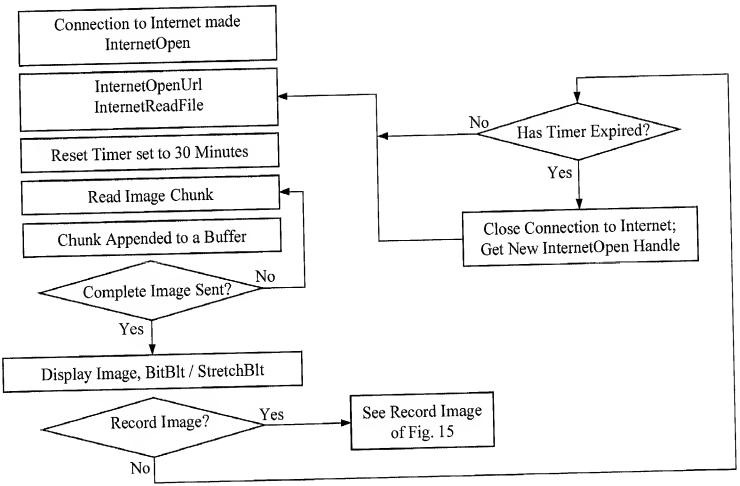
Connection to Internet made
InternetOpen
InternetOpenUrl
InternetReadFile
Reset Timer set to 30 Minutes
Read Image Chunk
Chunk Appended to a Buffer
Complete Image Sent?
No
Yes
Display Image, BitBlt / StretchBlt
Record Image?
Yes
See Record Image of Fig. 15
No
Has Timer Expired?
No
Yes
Close Connection to Internet; Get New InternetOpen Handle

Fig. 16

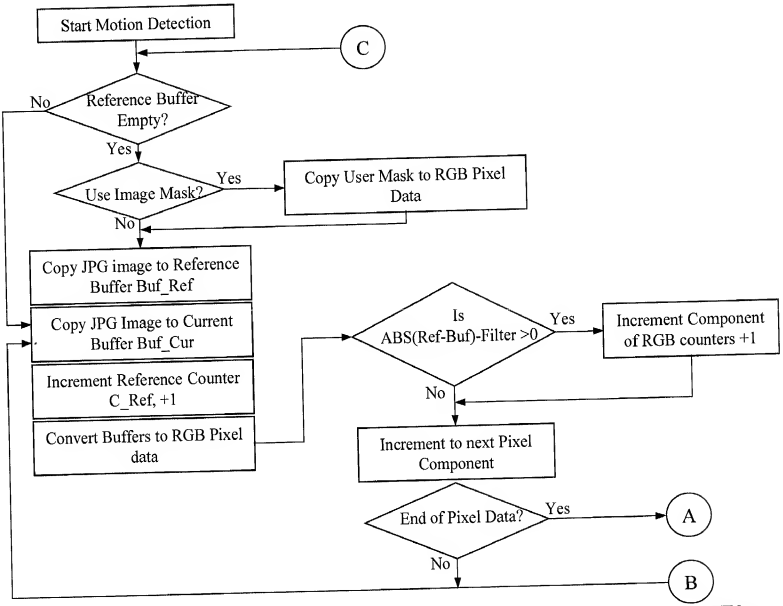
Start Motion Detection
C
No
Reference Buffer Empty?
Yes
Use Image Mask?
Yes
Copy User Mask to RGB Pixel Data
No
Copy JPG image to Reference Buffer Buf_Ref
Copy JPG Image to Current Buffer Buf_Cur
Increment Reference Counter C_Ref, +1
Convert Buffers to RGB Pixel data
Is ABS(Ref-Buf)-Filter >0
Yes
Increment Component of RGB counters +1
No
Increment to next Pixel Component
End of Pixel Data?
Yes
A
No
B

Fig. 17a

Patent Claimed

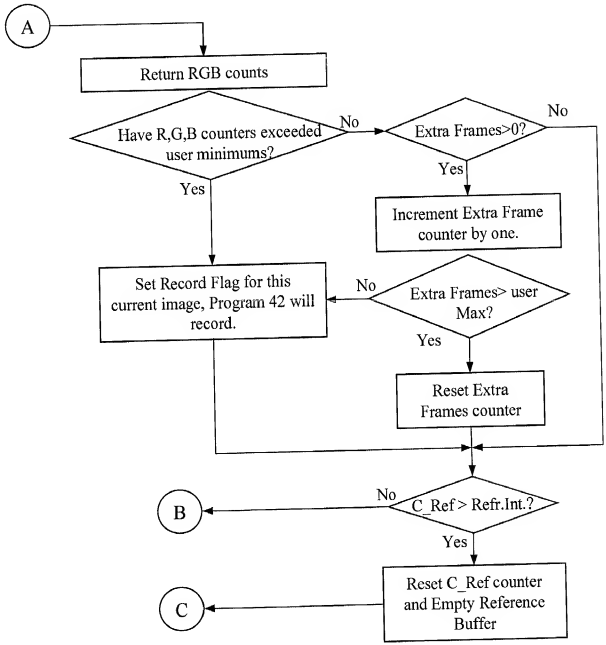

Fig. 17b